RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/601, 6448

Source: FFS

Date Processed by STIC: 3-4-05

ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 03/04/2005 PATENT APPLICATION: US/09/601,644B TIME: 07:46:31

Input Set : N:\efs\09601644B_efs\mmc_p001_txt.txt

Output Set: N:\CRF4\03042005\I601644B.raw

```
3 <110> APPLICANT: Gariepy, Jean
              Bray, Mark
      6 <120> TITLE OF INVENTION: Cytotoxic Heteromeric Protein Combinatorial Libraries
      8 <130> FILE REFERENCE: MMC.P-001
     10 <140> CURRENT APPLICATION NUMBER: 09/601,644B
C--> 11 <141> CURRENT FILING DATE: 2002-11-27
     13 <150> PRIOR APPLICATION NUMBER: PCT/CA98/01137
     14 <151> PRIOR FILING DATE: 1998-12-08
     16 <160> NUMBER OF SEQ ID NOS: 58
     18 <170> SOFTWARE: PatentIn version 3.3
     20 <210> SEQ ID NO: 1
     21 <211> LENGTH: 293
     22 <212> TYPE: PRT
     23 <213> ORGANISM: Shigella dysenteriae
     25 <400> SEQUENCE: 1
     26 Lys Glu Phe Thr Leu Asp Phe Ser Thr Ala Lys Thr Tyr Val Asp Ser
                          5
                                              10
     29 Leu Asn Val Ile Arg Ser Ala Ile Gly Thr Pro Leu Gln Thr Ile Ser
                     20
                                          25
     32 Ser Gly Gly Thr Ser Leu Leu Met Ile Asp Ser Gly Ser Gly Asp Asn
                 35
                                      40
     35 Leu Phe Ala Val Asp Val Arg Gly Ile Asp Pro Glu Glu Gly Arg Phe
     38 Asn Asn Leu Arg Leu Ile Val Glu Arg Asn Asn Leu Tyr Val Thr Gly
                             70
                                                  75
     41 Phe Val Asn Arg Thr Asn Asn Val Phe Tyr Arg. Phe Ala Asp Phe Ser
                                              90
     44 His Val Thr Phe Pro Gly Thr Thr Ala Val Thr Leu Ser Gly Asp Ser
     45
                    100
                                         105
                                                             110
     47 Ser Tyr Thr Thr Leu Gln Arg Val Ala Gly Ile Ser Arg Thr Gly Met
                115
                                     120
     50 Gln Ile Asn Arg His Ser Leu Thr Thr Ser Tyr Leu Asp Leu Met Ser
            130
                                 135
                                                     140
     53 His Ser Gly Thr Ser Leu Thr Gln Ser Val Ala Arg Ala Met Leu Arg
                            150
                                                 155
     56 Phe Val Thr Val Thr Ala Glu Ala Leu Arg Phe Arg Gln Ile Gln Arg
                        165
                                             170
     59 Gly Phe Arg Thr Thr Leu Asp Asp Leu Ser Gly Arg Ser Tyr Val Met
                    180
                                         185
     62 Thr Ala Glu Asp Val Asp Leu Thr Leu Asn Trp Gly Arg Leu Ser Ser
                                     200
     65 Val Leu Pro Asp Tyr His Gly Gln Asp Ser Val Arg Val Gly Arg Ile
     66
            210
                                 215
                                                     220
```

RAW SEQUENCE LISTING DATE: 03/04/2005 PATENT APPLICATION: US/09/601,644B TIME: 07:46:31

Input Set : N:\efs\09601644B_efs\mmc_p001_txt.txt
Output Set: N:\CRF4\03042005\I601644B.raw

68 Ser Phe Gly Ser Ile Asn Ala Ile Leu Gly Ser Val Ala Leu Ile Leu 69 225 230 235 71 Asn Cys His His Ala Ser Arg Val Ala Arg Met Ala Ser Asp Glu 245 250 74 Phe Pro Ser Met Cys Pro Ala Asp Gly Arg Val Arg Gly Ile Thr His 265 260 270 77 Asn Lys Ile Leu Trp Asp Ser Ser Thr Leu Gly Ala Ile Leu Met Arg 78 275 280 80 Arg Thr Ile Ser Ser 81 290 86 <210> SEQ ID NO: 2 87 <211> LENGTH: 69 88 <212> TYPE: PRT 89 <213> ORGANISM: Shigella dysenteriae 91 <400> SEQUENCE: 2 93 Thr Pro Asp Cys Val Thr Gly Lys Val Glu Tyr Thr Lys Tyr Asn Asp 1 96 Asp Asp Thr Phe Thr Val Lys Val Gly Asp Lys Glu Leu Phe Thr Asn 20 25 99 Arg Trp Asn Leu Gln Ser Leu Leu Ser Ala Gln Ile Thr Gly Met 35 40 102 Thr Val Thr Ile Lys Thr Asn Ala Cys His Asn Gly Gly Phe Ser 103 50 55 105 Glu Val Ile Phe Arg 106 65 109 <210> SEQ ID NO: 3 110 <211> LENGTH: 94 111 <212> TYPE: DNA 112 <213> ORGANISM: artificial 114 <220> FEATURE: 115 <223> OTHER INFORMATION: primer 118 <220> FEATURE: 119 <221> NAME/KEY: misc feature 120 <222> LOCATION: (25)..(26) 121 <223> OTHER INFORMATION: nis a, c, g or t 123 <220> FEATURE: 124 <221> NAME/KEY: misc_feature 125 <222> LOCATION: (28)..(29) 126 <223> OTHER INFORMATION: nis a, c, g or t 128 <220> FEATURE: 129 <221> NAME/KEY: misc_feature 130 <222> LOCATION: (31)..(32) 131 <223> OTHER INFORMATION: nis a, c, g or t 133 <220> FEATURE: 134 <221> NAME/KEY: misc_feature 135 <222> LOCATION: (34)..(35) 136 <223> OTHER INFORMATION: nis a, c, g or t

139 <221> NAME/KEY: misc feature

138 <220> FEATURE:

RAW SEQUENCE LISTING DATE: 03/04/2005 PATENT APPLICATION: US/09/601,644B TIME: 07:46:31

Input Set : N:\efs\09601644B_efs\mmc_p001_txt.txt
Output Set: N:\CRF4\03042005\I601644B.raw

```
140 <222> LOCATION: (37)..(38)
     141 <223> OTHER INFORMATION: nis a, c, g or t
     143 <220> FEATURE:
     144 <221> NAME/KEY: misc feature
     145 <222> LOCATION: (67)..(68)
     146 <223> OTHER INFORMATION: nis a, c, q or t
     148 <220> FEATURE:
     149 <221> NAME/KEY: misc feature
     150 <222> LOCATION: (70)..(71)
     151 <223> OTHER INFORMATION: nis a, c, g or t
     153 <220> FEATURE:
     154 <221> NAME/KEY: misc feature
     155 <222> LOCATION: (73)..(74)
     156 <223> OTHER INFORMATION: nis a, c, g or t
     158 <220> FEATURE:
     159 <221> NAME/KEY: misc feature
     160 <222> LOCATION: (76)..(77)
     161 <223> OTHER INFORMATION: nis a, c, g or t
     163 <400> SEQUENCE: 3
W--> 164 aaggtggagt atacaaaata taatnnsnns nnsnnsnnsa cagttaaagt gggtgataaa
                                                                                 60
W--> 166 gaattannsn nsnnsnnstg gaatcttcag tctc
                                                                                 94
     169 <210> SEQ ID NO: 4
     170 <211> LENGTH: 128
     171 <212> TYPE: DNA
     172 <213> ORGANISM: artificial
     174 <220> FEATURE:
     175 <223> OTHER INFORMATION: primer
     177 <400> SEOUENCE: 4
     178 tacgtactgc agctcgagtc aacgaaaaat aacttcgctg aatccaccgc cattatggca
                                                                                 60
     180 cgcgttagtt ttaatggtta cagtcatacc ggtaatttgc gcactgagaa gaagagactg
                                                                                120
     182 aagattcc
                                                                                128
     185 <210> SEQ ID NO: 5
     186 <211> LENGTH: 15
     187 <212> TYPE: DNA
     188 <213> ORGANISM: Shigella dysenteriae
     190 <400> SEQUENCE: 5
                                                                                 15
     191 aatgatgacg atacc
     194 <210> SEQ ID NO: 6
     195 <211> LENGTH: 12
     196 <212> TYPE: DNA
     197 <213> ORGANISM: Shigella dysenteriae
     199 <400> SEQUENCE: 6
     200 tttaccaaca qa
                                                                                 12
     203 <210> SEQ ID NO: 7
     204 <211> LENGTH: 5
     205 <212> TYPE: PRT
     206 <213> ORGANISM: Shigella dysenteriae
     208 <400> SEQUENCE: 7
     210 Asn Asp Asp Asp Thr
```

DATE: 03/04/2005

TIME: 07:46:31

Input Set : N:\efs\09601644B efs\mmc p001 txt.txt Output Set: N:\CRF4\03042005\I601644B.raw 211 1 214 <210> SEQ ID NO: 8 215 <211> LENGTH: 4 216 <212> TYPE: PRT 217 <213> ORGANISM: Shigella dysenteriae 219 <400> SEQUENCE: 8 221 Phe Thr Asn Arg 222 1 225 <210> SEQ ID NO: 9 226 <211> LENGTH: 15 227 <212> TYPE: DNA 228 <213> ORGANISM: artificial 230 <220> FEATURE: 231 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae 233 <400> SEQUENCE: 9 234 aacgaggagg agacg 15 237 <210> SEQ ID NO: 10 238 <211> LENGTH: 5 239 <212> TYPE: PRT 240 <213> ORGANISM: artificial 242 <220> FEATURE: 243 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae 245 <400> SEQUENCE: 10 247 Asn Glu Glu Glu Thr 248 1 251 <210> SEQ ID NO: 11 252 <211> LENGTH: 12 253 <212> TYPE: DNA 254 <213> ORGANISM: artificial 256 <220> FEATURE: 257 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae 259 <400> SEQUENCE: 11 260 ttcgcgaaca gc 12 263 <210> SEQ ID NO: 12 264 <211> LENGTH: 4 265 <212> TYPE: PRT 266 <213> ORGANISM: artificial 268 <220> FEATURE: 269 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae 271 <400> SEQUENCE: 12 273 Phe Ala Asn Asn 274 1 277 <210> SEQ ID NO: 13 278 <211> LENGTH: 15 279 <212> TYPE: DNA 280 <213> ORGANISM: artificial 282 <220> FEATURE: 283 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae 285 <400> SEQUENCE: 13

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/601,644B

RAW SEQUENCE LISTING DATE: 03/04/2005 PATENT APPLICATION: US/09/601,644B TIME: 07:46:31

Input Set : N:\efs\09601644B_efs\mmc_p001_txt.txt

Output Set: N:\CRF4\03042005\1601644B.raw

```
15
286 aacgagcagg acacc
289 <210> SEQ ID NO: 14
290 <211> LENGTH: 5
291 <212> TYPE: PRT
292 <213> ORGANISM: artificial
294 <220> FEATURE:
295 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae
297 <400> SEQUENCE: 14
299 Asn Glu Gln Asp Thr
300 1
303 <210> SEQ ID NO: 15
304 <211> LENGTH: 12
305 <212> TYPE: DNA
306 <213> ORGANISM: artificial
308 <220> FEATURE:
309 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae
311 <400> SEQUENCE: 15
                                                                            12
312 ttcgcgaaca gc
315 <210> SEO ID NO: 16
316 <211> LENGTH: 4
317 <212> TYPE: PRT
318 <213> ORGANISM: artificial
320 <220> FEATURE:
321 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae
323 <400> SEQUENCE: 16
325 Phe Thr His Arq
326 1
329 <210> SEQ ID NO: 17
330 <211> LENGTH: 15
331 <212> TYPE: DNA
332 <213> ORGANISM: artificial
334 <220> FEATURE:
335 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae
337 <400> SEQUENCE: 17
338 aaggacgacg cgagg
                                                                            15
341 <210> SEQ ID NO: 18
342 <211> LENGTH: 5
343 <212> TYPE: PRT
344 <213> ORGANISM: artificial
346 <220> FEATURE:
347 <223> OTHER INFORMATION: mutant fragment from Shigella dysenteriae
349 <400> SEQUENCE: 18
351 Lys Glu Asn Glu Ser
352 1
355 <210> SEQ ID NO: 19
356 <211> LENGTH: 11
357 <212> TYPE: DNA
358 <213> ORGANISM: artificial
360 <220> FEATURE:
```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/601,644B

DATE: 03/04/2005 TIME: 07:46:32

Input Set : N:\efs\09601644B_efs\mmc_p001_txt.txt

Output Set: N:\CRF4\03042005\I601644B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 25,26,28,29,31,32,34,35,37,38,67,68,70,71,73,74,76,77

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31 Seq#:32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55 Seq#:56,57,58

VERIFICATION SUMMARY

DATE: 03/04/2005 PATENT APPLICATION: US/09/601,644B TIME: 07:46:32

Input Set : N:\efs\09601644B_efs\mmc_p001_txt.txt

Output Set: N:\CRF4\03042005\I601644B.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0 L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60